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#### **ABSTRACT**

A study of community college services for handicapped students compared colleges identified as having model developmental programs with a random sample of community colleges. Comparisons between these groups were made with respect to services to two major categories of students: mildly handicapped students and moderately/severely handicapped students. A broad preliminary survey of 142 colleges obtained information on the proportion of handicapped students in the surveyed colleges, scores on computed measures of service, specific types of services available, demographic information, and opinions as to the kind and importance of improvements needed in educational services to handicapped students. Survey results, based on responses from 13 of 16 colleges with model programs and 78 of 127 randomly selected schools, indicated that: (1) community colleges were serving all types of handicapped students to a greater extent than other postsecondary institutions; (2) colleges with model programs were serving mildly handicapped students more . than the randomly selected colleges; (3) colleges serving either category of student could also be expected to serve the other category; and (4) agreement existed between both types of college as to priorities for improving service to handicapped students. The study report includes recommendations and a discussion of study implications for handicapped student services. (Author/HB)

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COMMUNITY COLLEGE ADAPTATION TO SERVE THE NEEDS
OF MILDLY HANDICAPPED TEENAGERS AND YOUNG ADULTS

Abstract

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This study sampled practices in service of handicapped students in community colleges. Two samples were utilized: those community colleges identified as having model developmental programs and a random sample taken from the national community college directory. Comparisons between these two groups were made within two major categories of students: mildly handicapped and moderate/severely handicapped. Survey methods were utilized to collect data from the two study groups.

Critical data included information on the proportion of handicapped students in the surveyed colleges, scores on computed measures of service, specific types of services available, demographic information, and expressed opinions as to kind and importance of areas related tolproviding better educational services to both categories of handicapped students. Statistical procedures included descriptive statistics to summarize responses, breakdown of responses by various criteria, inferences about the population by comparison of sample colleges responses to model colleges responses, correlation, and

multiple regression model development to predict percent of mildly handicapped.

Results of the study indicated that there were significant differences between community colleges identified as having model developmental programs and other community colleges in the extent of service to handicapped students on three measures: percent of total enrollment who are moderate/severely handicapped, number of offices for handicapped students, and a computed barrier score. was observed on a fourth\_measure, percent of total enrollment who are mildly handicapped. A positive relationship was observed between community college service to mildly handicapped students and service to moderate/severely handicapped students. The percent of moderate/ severely handicapped was the strongest predictor of percentage of total enrollment who are mildly handicapped. Demographic differences were noted in community colleges serving handicapped students. of the five needs ranked most important to better service for handicapped students by community college administrators had been reported as priority tasks by Jernigañ & Clark (1978).

It was found that community colleges are currently serving a larger proportion of handicapped students compared to other higher education institutions. Even so, early and accurate identification of handicapped students so that they may be better served was a need clearly expressed by the community colleges.

# COMMUNITY COLLEGE ADAPTATION TO SERVE THE NEEDS OF MILDLY HANDICAPPED TEENAGERS AND YOUNG ADULTS

Public Law 94-142 has mandated that public schools extend their provision of services to include handicapped students between the ages of 16 and 21. Programs for handicapped students in that age group have in the past received little attention or support from public schools. Community colleges may represent a viable educational environment for handicapped teenagers and young adults who frequently have been unserved or minimally served. Factors considered instrumental to past community college growth and development may also serve to assist the community college to provide appropriate educational environments for handicapped students. Senator Chet Brooks, Chairman of Human Resources Committee of the Texas Senate, stated that the community college has the best institutional apparatus to serve vocational and other educational needs of handicapped persons, because it lends itself to individualized attention and development. "It is the best way to make Higher education accessible to handicapped individuals" (Brooks, 1979).

The handicapped are among those people for whom community!

colleges will have to make provisions if they are to accept the challenge of providing a new educational pattern. Exactly how this challenge is to be met will be determined by future goals, events, and efforts. The alternative selected, whether it be widespread implementation of the pluralist model, further refinement of developmental programs, discovery of some new method, or some combination of these or other elements will be influenced by a variety of societal and organizational factors. Research in this area is an additional factor



specific methods, goals, and evaluation techniques to fully utilize developmental programs or learning experiences for new categories of non-traditional college stuffents calls for thoughtful consideration.

This study sampled practices in service of handicapped students in community colleges. Two samples were utilized: a random sample from the national community college directory and community colleges identified as having model developmental programs. Comparisons between these two groups were made concerned with two major categories of students: mildly handicapped (Category A) and moderate/severely handicapped (Category B). Survey methods were utilized to collect data from the two study groups.

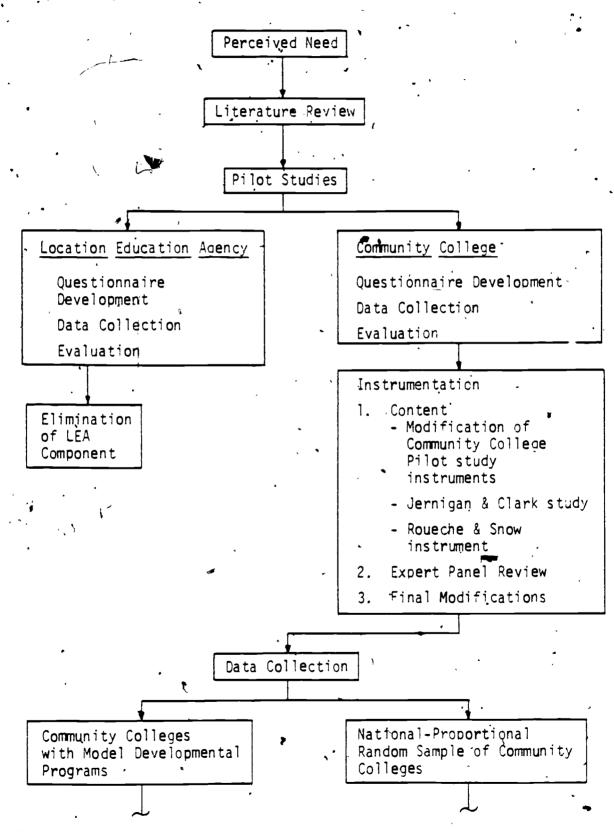
#### Critical Data

Critical data included information on the proportion of handicapped students in the surveyed colleges, scores on computed measures of service, specific types of services available, demographic information, and expressed opinions as to kind and importance of areas related to providing better educational services to both categories of handicapped students. This was a preliminary study and information was collected across a wide spectrum, the emphasis on comprehensiveness rather than depth and specificity.

The sequence and relationship of procedural steps used for this study are presented in Figure 1 followed by the results of the study.



Figure 1. Sequence and Relationship of Procedural Steps



## Statistical Procedures

- 1. Descriptive statistics to summarize responses.
- 2. Breakdown of responses by various criteria.
- 3. Inferences about population by comparison of sample colleges responses to model college responses.
- 4. Correlations.
- Multiple regression model to predict proportion of mildly handicapped.

### Research Questions Answered

- On three of four measures of extent of service to handicapped, there were significant differences between community colleges identified as having model developmental programs and other community colleges.
- 2. There was a positive relationship between community college service to mildly handicapped students (Category A) and service to moderate/severely handicapped students (Category B).
- 3. Proportion of Category B was the strongest predictor of percentage of total enrollment who are mildly handicapped (Category A). The Amalgamated Service Score is the second best predictor.

# Ancillary Questions Answered

- 1. Three of the top five priority asks ranked by community college administrator had been reported as identified priority tasks by Jernigan & Clark (1978).
- 2. There were demographic differences in community college service to handicapped students.

In summary, the results of the study indicated that:

- A. Community colleges were currently serving all types of handicapped students to a significantly greater extent than other types of higher education institutions.
- B. Community colleges identified as having model developmental programs were currently serving mildly handicapped students to a greater extent than the population of community colleges represented by the random sample.
- C. Community colleges serving either one of the categories of handicapped students could be expected to be serving the other category as well.
- D. Community colleges which had implemented specific services and courses for handicapped students were serving these students better than those who indicated that they were implementing the tasks identified to remove barriers to service of handicapped students. There was, however, some correlation between these two areas of service.
- E. There was agreement between model and other colleges as to priorities for improving service to handicapped students. A need for additional funding ranked as the first priority by both groups.
- F. A rural location resulted in a significantly greater percent of mildly handicapped, but not in greater percent of moderate/severely handicapped. There were also significantly greater average percents of mildly handicapped in the South and South West regions of the United States. The Mid West had a much

greater average percent of Category B, but the difference was not significant.

G. Data collected for this study was not complete enough to allow the development of a model to fully predict the percentage of handicapped students in community colleges.

The results of this study were based on responses to a mailed questionnaire from a national, random sample of community colleges and a group of community colleges identified as having model developmental programs. The questionnaire was designed to gather information on two categories of handicapped students: Category A, mildly handicapped and Category B, moderate/severely handicapped.

One hundred and forty two questionnaires were mailed and 63.6% or 91 were returned. Rate of return for model colleges was 81% (13 of 16) and for the randomly sampled colleges, 61,4% (78 of 127). Eight of the responses returned could not be included because they were not completed. One of these had become a four year college and the others stated they did not consider themselves community colleges and therefore did not participate. Eighty-four valid cases were analyzed. On the basis of these results the following general conclusions were drawn.

#### Conclusions

A. Collages with model developmental programs appeared to be serving handicapped students better than community colleges



in general.

- B. There was a definite positive relationship between extent and type of service to mildly handicapped students and extent and type of service to moderate/severely handicapped students.
- C. In order to accurately predict service to handicapped students as represented by proportion of total enrollment, the need for further research was indicated.
- D. There was agreement among administrators in model program colleges and other community colleges as to priorities needed to improve service to handicapped students.
- E. Community colleges were currently serving a larger proportion of handicapped students compared to other higher education institutions.
- F. A large proportion of handicapped students were still not receiving post-secondary educations.

# Discussion

Prediction of the proportion of handicapped students was not fully explained by the data collected for this study. It would have been desirable to have developed a regression model with additional variables, however, incompleteness of the data limited the model to a few quantitative variables and two dummy variables. Further study which would allow multivariate analysis of selected demographic variable (e.g. geographic region and location) with proportion of Category A and proportion of Category B as dependent variables could



result in a better predictive model. Even though a model could not be developed to fully predict the variability in percent of total enrollment who are Category A and Category B students, results of the study did provide information on differences in service to the two groups of students and between the two groups of colleges.

There was observed a difference in service to mildly and to moderate/severely handicapped students. While the model colleges were serving Category A, mildly handicapped, to a significantly greater extent than other community colleges, this did not appear to be true for Category B, moderate/severely handicapped. More important was the great difference observed between the 0.5% national average of handicapped students in colleges and universities and the average percent of all handicapped students for both the random sample and the model colleges. The mean (2.47%) for the random sample was almost five times as great as the national average and the model college mean. (1.28%) was, over two and one half times as great. These figures tended to support the idea that the community college is an appropriate educational environment for handicapped students. This may be due in part to the lack of stringent entrance requirements. One hundred percent of the model colleges and 99.7% of the random sample reported their institution had an "open door" policy, thus allowing all types of handicapped easy access to higher education.

Another contributing factor may be the relatively high frequency with which both groups of colleges reported that they were able to secure funding for services to both categories of handicapped



lower than for Category B (dodel: 69.2% to 76.9%) and (random: 61.4% to 62.9%). More visible handicaps may be more readily funded as they have been in the past.

The relatively high percentages of colleges that indicated they were able to secure funding for handicapped student service appeared to conflict with the high priority given by both groups of colleges to the need for increased funding for special programs, services, etc. for handicapped students. This may be an example of a perceived need which may not be a real need.

Another example of a perceived need which may not be realistic was the lack of a difference in the proportion of handicapped students for community colleges that are providing inservice to assist faculty to work with Category A students ( $\overline{X}=1.52$ ) and those that reported they were not providing such inservice ( $\overline{X}=1.53$ ). Inservice concerned with assisting faculty to work with Category A students did not appear to, improve the percentage of total enrollnent who are Category A students. Nonetheless, the need for faculty inservice was ranked fifth by Model colleges and fourth by the Random sample. It also received a total of ten mentions in the tallied open-ended question concerned with provision of better service to handicapped students.

This apparent contradiction could have resulted from inservice which enables faculty to work with Category A students, although not specifically intended for this purpose. Rather it allowed them to improve their ability to work with all nontraditional students.

Community colleges that were not currently providing inservice in this area may have done so in the past so that the proportion of Category A students reflected past successful inservice equal to the results of inservice currently taking place.

Many of the instructional techniques recommended for high-risk or non-tradiational students were reported to be part of their curricula by a large percentage of the model colleges and to a lesser extent by the random sample. The high percentage of the total enrollment who are handicapped students in the random sample was in the presence of a relatively low proportion of developmental programs that were composed of a distinct division of department of developmental studies—only 35.7%. This may indicate that there were additional factors (such as an office for handicapped students and experience with other non-traditional students) which contributed to higher proportions of handicapped students.

A significant difference in the meal percent of Category A between colleges with an office of handicapped students (1.73%) and those without/an office (0.46%) indicated that this may be one important factor in the quality of service to handicapped students. A difference in the mean percent of Category A was also found between colleges with a learning assistance center (1.60%) and those without such a resource (0.9%). This difference was not significant although both college groups had a high percentage of such learning assistance centers. The existence of this type of support service may contribute to the greater overall proportion of handicapped students in community



colleges.

The significant difference between the mean proportion of Category A and Category B students in community colleges that reported themselves to have a rural location may be explained in part by physical barriers. Transportation problems may affect the numbers of Category B students in rural colleges. In addition, the rurally located colleges may have more difficulty providing specialized services such as interpreters for hearing impaired students and readers/note takers for visually impaired students. Further study may clarify such issues.

The model program colleges did have consistently higher percentages for various types of special services for handicapped students such as tutoring, financial aid, counseling, etc. High correlations between Category A and Category B in several areas of service indicated that if services are provided for a community college for one category of students they are probably also provided for the other. This was notable in that the correlations between the percentages of handicapped students were lower so that while service to one category occurred in the presence of services to the other category, large proportions of students in one category did not necessarily mean an institution would have large proportions of students in the other category even though that was the single best predictor for both categories.

The proportion of students in Category A predicted only about 25% of the variability of Percent B and conversely Percent B predicts

only about 20% of Percent A. Thus variables not identified by this study are needed to develop a complete prediction model. Further research may provide information which would identify such variables. While the proportion of one category was the best predictor of the proportion of the other category, the relatively small variability which each predicts may explain the moderate to low correlations between percentages of handicapped students.

The higher correlations between Service and Barrier Scores may be due in part to organizational factors. If a community college has policies or procedures such as tutoring services or financial aid for one category, these same policies or procedures could be extended to the other category. In addition, community college administrators could be assuming that both categories of handicapped students are using many of the same services therefore they responded that the community college was serving both categories through the same organizational procedures. Community colleges sensitive to the needs of one category would be more likely to be sensitive to the needs of the other category. They may have responded to these needs by providing services, facilities, funds, etc. for both groups. However, provision of a support system did not necessarily mean students in both categories would avail themselves of services. Problems with identification of Category A stydents may mean that even though the services are provided they are not fully utilized by these students.

Differences observed in the types of counselors available and the type of training received by counselors may be the esult of the

emphasis placed on counseling by community colleges with model developmental programs directing major efforts toward assisting high risk students to succeed through developmental studies. Counseling may be considered to be a major factor in service to mildly handicapped students. These students are less likely to identify themselves as needing special services, therefore a strong counseling program may have the affect of screening students to identify those with mild handicaps who can benefit from additional services and/or special programming.

The significant differences in average percent of total enrollment who are mildly handicapped between colleges reporting that
they were meeting the needs of these students and those which were
not may indicate that a need for improvement in services is the
result of the presence of a greater proportion of handicapped students on campus. It may also indicate that those colleges that are
satisfied with the extent of their service to handicapped students
are not serving them as well as those which are concerned about the
need for improved services.

The concern for teaching over research is a characteristic of the community college not directly measured in this study. However, it may be inferred that the characteristic was responsible at least in part to the higher proportion of handicapped students on community college campuses.

The higher barrier scores for model program colleges indicated that they have begun to implement the priority tasks identified by



Jernigan & Clark (1978) to a greater extent than other community colleges. The identified barriers may be more related to service of mildly than to moderate/severely handicapped thus the model program colleges which were attempting to remove these barriers by implementing the priority tasks were serving the mildly handicapped to a greater degree. Their higher service scores also indicated that the model program colleges were further along in providing the type of service required by mildly handicapped students.

### **Implications**

The results of this study precipitated several questions. It appeared that community colleges were serving handicapped students as far as percentage of total enrollment is an indicator of service. Are they also meeting the needs of these students or is the open door which allows the handicapped ready acess to higher education the "revolving door" described in the community college literature? Data should be collected which would allow comparison of retention rates and successful completion of programs for handicapped and non-handicapped students. Qualitative information on service to handicapped students is an essential step to better understanding those programs and organizational elements which would result in appropriate educational service to the handicapped after they complete public school special education programs.

It is important to determine the extent to which traditional community college characteristics such as open-admissions, geographic accessibility, emphasis on faculty teaching, and a strong counseling



the existence of an office of handicapped students and provision of special services for handicapped students to impact the proportion of handicapped students being served by community colleges. With increased information, educators would be able to provide the additional time and services required by many handicapped students to reach their full potential through appropriate post-secondary education programs.

A significant need appeared to exist for greater linkages between public school special education and community colleges. Early and accurate identification of handicapped students so that they may be better served was a need clearly expressed by community colleges. Because many students with less visable handicaps may not self-identify as needing special services, some method for identification is essential if all handicapped students are to receive appropriate higher, education.

The question of what specific elements or combination of elements of the model community college is responsible for the greater number of mildly handicapped students being served by those colleges is important. It may be that the elements required for identification as having a model developmental program are also those elements which result in a greater proportion of handicapped. However, further research is necessary in order to determine what specific critical variables can be identified. Other institutions of higher education would have the option of implementing these areas which could increase the proportion of handicapped students they are serving. In addition,

community colleges which exemplify the type college having elements appropriate for service to handicapped students.

Although many questions remain unanswered and new questions have surfaced, it appears that the community college is continuing its long standing tradition of service to non-traditional students through service to handicapped students. Lack of published information to this affect may indicate that the community colleges themselves are not aware of the extent to which they are serving mildly handicapped students.

Results of this study indicated some general areas which if examined by community college administrators could lead to improved services to handicapped setudents. For greater effectiveness, the following guidelines should accompany a local needs assessment:

- (1) Formally establish service to handicapped students as a goal of the college.
- (2) Examine the effectiveness of the developmental studies, program.
  - Can you identify such a program?
  - Are counselors an integral part of the program?
  - Do you have an office of handicapped students?
  - Do teachers of developmental courses volunteer to teach these classes?
  - Are written course objectives provided to students in these courses?
  - Do you formally evaluate the effectiveness of this program with outcome measures or criteria?



- (4) Develop formal linkages to state agencies that sponsor handicapped individuals such as Vocational Rehabilitation Commission and Commission for the Blind.
- (5) Provide faculty/staff inservice information on recognizing characteristics of mildly handicapped students, modifying teaching techniques and materials, availability of faculty and student support services on campus, and coping skills.
- (6) Allow easy and confidential self identification of special needs through the use of forms completed by all students during the admission process.

All of higher education is a long way from serving the proportion of handicapped students expected from national prevalence. figures, however, the community college appeared to be leading the way. One of the respondents made the following statement to the question of problem areas for provision of service to handicapped: "We have been dealing with mildly handicapped since day one. We were involved before the laws were written, now we are getting some funds to provide staff and service to them." If this comment reflected the position of other community colleges, therein may be a partial explanation for the greater proportion of handicapped students being served by these colleges. The community college has accepted mildly handicapped students as a matter of course without attaching a label to these students.